

ALTERNATIVES TO STRETCH FORAGE SUPPLIES**By**

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**Maintain a 3" Minimum Grazing Height****Inventory Animal Demand and Forage Supply**

1. Animal demand per 1,000 lb. cow is roughly 20-30 lbs. of forage per day, 750-900 lbs. forage per month or 9,000-10,800 per year. Demand will be somewhat less for non-lactating animals and somewhat higher for lactating animals. It is best to allow for 10 percent wastage as well. Most operations feed hay for a minimum of 90 days. Real good grazers or low-stocked operations feed less days. On average, producers feed hay 120 days. Example: 120 days x 30 lbs. = 3,600 lbs./cow + 360 lbs. waste = 3,960 lbs. hay/cow/winter feeding of 120 days.
2. Inventory hay or other feed supply.
3. Inventory pasture - Every acre inch of forage = 200–400 lbs. of dry matter. A good average is 300 lbs./acre inch for good producing grass.

Example: 5 inches of growth x 300 lbs./acre inch = 1,500 lbs. of forage, but typically livestock only consume around 50 percent of that, so 750 lbs. per acre.

As few as two or three plants per square foot with good stem diameter should rebound and make a good stand with good management and rain. If the pasture is grazed for an extended time below 3 inches, the pasture will likely need re-seeding.

4. Some producers like to have a 20 percent carryover of hay for insurance in case of a long winter, extended drought, hay fire, etc.

Example: 20 head cows x 3,960 lbs. per 120 days = 79,200 lbs. per 20-head cow herd. If rolls of hay weigh 1,000 lbs. and haven't weathered much, this producer would need 79 or 80 rolls per winter. Twenty (20) acres x 750 lbs./acre = 15,000 lbs. of forage which would last about 25 days if 20 head were grazing and no additional growth occurred (20 head x 30 lbs./day = 600 lbs. forage demand).

Options to Stretch Forage Supply

If additional forage is needed, one or a combination of the following alternatives could improve forage utilization and/or production:

- Best to restrict animals to one paddock till other paddocks re-grow; otherwise, all paddocks will be grazed so low that recovery is very slow and grass may even be killed.
- When forage re-grows to five inches or taller, allow animals access to four days or less of forage at a time. This will typically increase forage utilization by 20 percent or more.
- Stockpiling tall fescue - setting aside 0.5 to 1 acre per cow extends grazing and provides higher quality grazing. Many producers stockpile tall fescue without fertilizing with nitrogen. This is a consideration especially as fertilizer prices rise.
- Consider the following: Fertilizing tall fescue with 60 lbs. of Nitrogen (180 lbs. of ammonia nitrate) will produce an additional ton of forage. Cost of Nitrogen at \$0.40/lb. of N x 60 lbs. N = \$24/acre, so if hay cost \$24/1,000 lb. roll, a producer will produce an additional 1,000 lbs. of forage. Some of that standing grass will be wasted due to trampling and manuring. Depending on forage management, cattle will consume 50 to 70 percent of the 1,000 lbs. providing a benefit of an additional 500 to 700 lbs. above cost of N.
- Over-seeding pastures with winter annuals - It is typically not feasible to overseed pastures with winter annuals unless tall fescue stand is less than 50 percent. Even then it is questionable, but in an emergency it is an option. Spring oats provide the quickest growth in the fall, but will winter kill in winter. Winter oats are another option. Seed 4 bushels of oats by October 1. Rye is second quickest growth. Seed 2-3 bushels/acre prior to October 15 for fall growth. Wheat seed 2-3 bushels/acre by October 1. Ryegrass generally only provides late winter quality forage the same time that tall fescue is growing. Fertilize winter annuals with a minimum of 45 lbs. of N/acre.
- Consider leasing additional pasture.
- Grazing fields traditionally used for fall hay. This is a particularly good option when you consider harvest efficiency of harvesting hay is typically 70 percent and strip grazing efficiency is 70 percent, the same utilization at less cost. If land is not strip grazed, utilization will most likely be 50 percent. With high fuel costs, the best option would be to graze hay fields in the fall.
- Early weaning will reduce stress on the cow and extend forage supply.

- Creep grazing, allowing calves access to higher quality forage than the cows, is a great option. A demonstration farm in Bledsoe County that creep grazed calves gained an additional 75 lbs. grazing pearl millet in the summer. Winter annuals are a good option for creep grazing in the cool months. Some producers run their electric wire high at about 30” and allow calves to free range choosing the best forage ahead of the cows. It is also easy to wean calves by lowering the wire when the calves are grazing on the other side (low stress weaning). Cows are in better condition so they breed back sooner.
- Feed ruminant friendly byproducts such as soy hulls and corn gluten.
- Irrigation can improve forage production. It is important to have an optimum stand, weed control, and fertility for irrigation to pay.
- Adjust stocking rate. Some producers like to stock for drought and not high production. Stocking for drought is approximately 20 percent below the calculated maximum stocking rate.

Management Strategies Ahead of Drought

- Diversity of forages - 70 percent cool season, 30 percent warm season. Different species within each cool season/warm season group also spreads out the growing season.
- Multiple paddocks of five or more.
- Proper grazing heights - A recent study at North Carolina State University (NCSU) showed overgrazed pastures produced 37 percent less than pasture grazed to a 3” height.
- Stockpiled forage provides quality forage at the lowest cost.
- Maintaining fertility.